

**Translation**

**PATENT COOPERATION TREATY**

**PCT**

**INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY**

(Chapter II of the Patent Cooperation Treaty)

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference <b>B03/0391PC</b>	<b>FOR FURTHER ACTION</b> See Form PCT/IPEA/416	
International application No. <b>PCT/EP2004/009223</b>	International filing date ( <i>day/month/year</i> ) <b>17.08.2004</b>	Priority date ( <i>day/month/year</i> ) <b>18.08.2003</b>
International Patent Classification (IPC) or national classification and IPC <b>G01N17/00</b>		
Applicant <b>BASF AKTIENGESELLSCHAFT</b>		

<p>1. This report is the international preliminary examination report, established by this International Preliminary Examining Authority under Article 35 and transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>6</u> sheets, including this cover sheet.</p> <p>3. This report is also accompanied by ANNEXES, comprising:</p> <p>a. <input type="checkbox"/> (sent to the applicant and to the International Bureau) a total of _____ sheets, as follows:</p> <p><input type="checkbox"/> sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications authorized by this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions).</p> <p><input type="checkbox"/> sheets which supersede earlier sheets, but which this Authority considers contain an amendment that goes beyond the disclosure in the international application as filed, as indicated in item 4 of Box No. I and the Supplemental Box.</p> <p>b. <input type="checkbox"/> (sent to the International Bureau only) a total of (indicate type and number of electronic carrier(s)) _____, containing a sequence listing and/or tables related thereto, in computer readable form only, as indicated in the Supplemental Box Relating to Sequence Listing (see Section 802 of the Administrative Instructions).</p>																									
<p>4. This report contains indications relating to the following items:</p> <table> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. I</td> <td>Basis of the report</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. II</td> <td>Priority</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. III</td> <td>Non-establishment of opinion with regard to novelty, inventive step and industrial applicability</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. IV</td> <td>Lack of unity of invention</td> </tr> <tr> <td><input checked="" type="checkbox"/></td> <td>Box No. V</td> <td>Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VI</td> <td>Certain documents cited</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VII</td> <td>Certain defects in the international application</td> </tr> <tr> <td><input type="checkbox"/></td> <td>Box No. VIII</td> <td>Certain observations on the international application</td> </tr> </table>		<input checked="" type="checkbox"/>	Box No. I	Basis of the report	<input type="checkbox"/>	Box No. II	Priority	<input type="checkbox"/>	Box No. III	Non-establishment of opinion with regard to novelty, inventive step and industrial applicability	<input type="checkbox"/>	Box No. IV	Lack of unity of invention	<input checked="" type="checkbox"/>	Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement	<input type="checkbox"/>	Box No. VI	Certain documents cited	<input type="checkbox"/>	Box No. VII	Certain defects in the international application	<input type="checkbox"/>	Box No. VIII	Certain observations on the international application
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Date of submission of the demand	Date of completion of this report
Name and mailing address of the IPEA/EP	Authorized officer
Facsimile No.	Telephone No.

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

International application No.

PCT/EP2004/009223

## Box No. I Basis of the report

1. With regard to the language, this report is based on the international application in the language in which it was filed, unless otherwise indicated under this item.
- ☐ This report is based on translations from the original language into the following language \_\_\_\_\_, which is the language of a translation furnished for the purposes of:
- ☐ international search (Rule 12.3 and 23.1(b))
- ☐ publication of the international application (Rule 12.4)
- ☐ international preliminary examination (Rule 55.2 and/or 55.3)
2. With regard to the elements of the international application, this report is based on *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this report as "originally filed" and are not annexed to this report)*:
- ☐ the international application as originally filed/furnished
- ☒ the description:
- pages 1-24 as originally filed/furnished
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- pages\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the claims:
- nos. 1-38 as originally filed/furnished
- nos.\* \_\_\_\_\_ as amended (together with any statement) under Article 19
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- nos.\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☒ the drawings:
- sheets 1/9-9/9 as originally filed/furnished
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- sheets\* \_\_\_\_\_ received by this Authority on \_\_\_\_\_
- ☐ a sequence listing and/or any related table(s) – see Supplemental Box Relating to Sequence Listing.
3. ☐ The amendments have resulted in the cancellation of:
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_
4. ☐ This report has been established as if (some of) the amendments annexed to this report and listed below had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule 70.2(c)).
- ☐ the description, pages \_\_\_\_\_
- ☐ the claims, nos. \_\_\_\_\_
- ☐ the drawings, sheets/figs \_\_\_\_\_
- ☐ the sequence listing (*specify*): \_\_\_\_\_
- ☐ any table(s) related to sequence listing (*specify*): \_\_\_\_\_

\* If item 4 applies, some or all of those sheets may be marked "superseded."

## INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY

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PCT/EP2004/009223

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1.	Statement		
	Novelty (N)	Claims <u>3, 14, 15, 17-19, 22, 23, 26, 27, 31, 32, 38</u>	YES
		Claims <u>1, 2, 4-13, 16, 20-21, 24-25, 28-30, 33-37</u>	NO
	Inventive step (IS)	Claims _____	YES
		Claims <u>1-38</u>	NO
	Industrial applicability (IA)	Claims <u>1-38</u>	YES
		Claims _____	NO
2.	Citations and explanations (Rule 70.7)		
	Reference is made to the following documents:		
	D1: EP-A-1 229 321		
	D2: EP-A-0 908 716		
	<p>The present application does not meet the requirements of PCT Article 33(1) because the subject matter of claim 1 is not novel within the meaning of PCT Article 33(2).</p> <p>Document D1 discloses a method for detecting a change in a physically measurable property of a sample, brought about by environmental factors (page 1, paragraph 1), according to which</p> <p>i the sample is exposed to the environmental factor for a defined period (see, for example, page 7, lines 17-18: "The dried coating samples ... Spring House, PA."), wherein the environmental factor is allowed to influence the sample with a known, location-dependent intensity distribution (page 5, lines 11-12: "An instrument such as ... used for the measurements." The pattern function on which the location-dependent intensity distribution is based is uniform),</p>		

Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
	<p>ii and then the transmission, reflection or scattering of analysis radiation by the sample is detected as a function of the location coordinates of the sample and the wavelength of the analysis radiation and in this way a response function is determined which indicates the intensity of the transmitted, reflected or scattered analysis radiation as a function of the location coordinates of the sample and the wavelength (page 5, lines 4-7: "Chemiluminescence signal intensities ... used for signal detection". Since the analysis radiation in the claim is not defined more closely, the chemiluminescence can be considered an analysis radiation. The chemiluminescence radiates from the sample to the detector. Consequently, the transmission of an analysis radiation is detected.),</p> <p>iii by correlation analysis the correlation of the known location-dependent intensity distribution of the environmental factor is determined using the response function (page 7, lines 18-20: "The integrated peak areas, <u>normalized to zero peak areas for unexposed samples</u>, from the chemiluminescence test are presented in Table 2.2." A correlation analysis is disclosed by the underlined wording, since a correlation to the unexposed samples is determined), wherein this correlation is a measure of the changes in the physically measurable property of the sample brought about by the environmental factor.</p> <p>Claim 1 is therefore not novel over document D1.</p> <p>Claim 1 is also not novel over document D2 (see page 5, lines 21-34).</p>

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
citations and explanations supporting such statement**Additional observations concerning the clarity of claim 1**

Since the intensity distribution  $I(x,y)$  and the pattern function  $M(x,y)$  are not defined anywhere in claim 1, claim 1 is not restricted by either of these two expressions.

Owing to the parentheses between which it is placed, the term "intensity pattern" in claim 1 is not clear.

The determination of a response function (claim 1, specified lines 13 and 14) does not appear to differ from the detection of a radiation referred to as an analysis radiation.

Since the response function is not defined, it is not clear how the correlation of the intensity function or of the pattern function (which is likewise not defined) can be determined using the response function. However, the method step "correlation analysis" is vague, since a correlation is nothing other than a mutual interdependence of two parameters.

**Dependent claims**

None of the claims dependent on claim 1 appear to be novel and/or inventive.

The application specifies that the calculation of a power spectrum could form part of the method. This aspect appears to be disclosed in claims 17-19. Each of figures

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PCT/EP2004/009223

Box No. V

Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability;  
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1, 2, 4 and 6 discloses a power spectrum which was recorded after a period of irradiation. The application does not disclose an equivalent power spectrum registered before the start of irradiation. Consequently, it is not possible to assess whether the calculation of a power spectrum, as described in the application, has a technical effect. Therefore, none of claims 17-19 can be considered inventive.